

Remarks

I. Correction of the Specification

The Specification has been amended to correct the typographical errors noted by the Examiner.

II. Response to Restriction Requirement

In response to the Examiner's restriction requirement, Applicant provisionally elects Group I with traverse.

The restriction requirement is submitted to be improper because the subcombination of Group I is not independent and distinct from the combination of Group II. In particular, the combination of claim 16 in Group II recites the following elements:

- A. a semiconductor structure having a p-type region; and
- B. a tunnel contact structure disposed between the p-type region of the semiconductor structure and an adjacent n-type region, wherein the tunnel contact structure includes [the subcombination of claim 5 in Group I].

U.S. Patent No. 5,936,266 (the "266 patent"), which is listed on the Form PTO 1449 that was filed with the application, discloses a heterostructure that includes all of the elements of the subcombination of claim 16 except for the subcombination of claim 5. In particular, with reference to FIG. 3, the '266 patent discloses a heterostructure that includes a semiconductor structure having a p-type region (i.e., p-type layers 128, 126, 122, 199, 117), and a tunnel contact structure 130 disposed between the p-type region of the semiconductor structure and an adjacent n-type region (i.e., n-type upper confining layers 141, 143, 146, 150). Therefore, the novelty of the combination of Group II resides in the subcombination of Group I (as represented by claim 5). In other words, contrary to the Examiner's assertion, the combination as claimed *does* require the particulars of the subcombination as claimed for patentability (see MPEP § 806.05(c)). Thus, the subcombination of Group I and the combination of Group II are not independent and distinct.

Applicant notes that class 257, subclass 25, and class 257, subclass 9+ are overlapping classification categories, both of which have been assigned to the Examiner's art unit.

Applicants request that the Examiner reconsider and withdraw the restriction requirement for the reasons explained above.

III. Election Requirement

In response to the Examiner's election requirement, Applicant provisionally elects the species IB with traverse. Claims 1-7, 9-13, and 15 of Group I read on the elected species IB.

The election requirement is traversed because the majority of the claims of Group I read on the identified species IA, IB, and IC. In addition, each of the identified species differs from the embodiments of generic claims only by recitation of specific semiconductor elements or groups of semiconductor elements forming the respective first, second and intermediate semiconductor layers recited in the generic claims. Any search for prior art relating to the generic claims is equally likely to turn up prior art relating to the species of IA, IB, and IC. Accordingly, the nature of the species identified by the Examiner is not such that it would be unduly burdensome for the Examiner to search for prior art relating to each of the species IA, IB, and IC at the same time. In addition, the number of species is not so large that it would be unduly burdensome for the Examiner to consider all of the species in a single search for prior art.

Applicants request that the Examiner reconsider and withdraw the election requirement for the reasons explained above.

IV. Conclusion

Charge any excess fees or apply any credits to Deposit Account No. 50-1078.

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Respectfully submitted,

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